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Novin et al.

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(54) **FLAT PANEL DISPLAY TILT AND SWIVEL MECHANISM**

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(57) **ABSTRACT**

A hinge connects a first member to a second member. The hinge includes a connector constructed of a polymeric material secured to the first member. The connector is constructed from a polymeric material and has a generally flat connector surface, and a first axis. A support is rotatably connected to the connector about the first axis. The support is constructed of a metallic material and has first and second opposing generally flat support surfaces. The first generally flat support surface is biased against the connector surface. A friction piece constructed of a polymeric material is rotatably connected to the support about the first axis and is rotatably fixed to the connector. The friction piece is biased against the second generally flat support surface. A torque element has a first end including an open portion and a closed portion. The torque element has an elongated second end extending from the closed portion. The second end of the torque element is fixedly connected to the support. A shaft extends from the second member and is rotatable about a second axis. The shaft has first and second ends, the first end of the shaft being fixedly connected to the second member. The shaft is rotatably located within the first end of the torque element. The hinge further includes a first biasing element positioned between the shaft and the support which biases the shaft to rotate about the second axis in a first direction.

26 Claims, 3 Drawing Sheets

